

FILE 'HOME' ENTERED AT 14:43:47 ON 11 JUL 2008

=> fil hcapl
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.21	0.21

FULL ESTIMATED COST

FILE 'HCAPLUS' ENTERED AT 14:44:04 ON 11 JUL 2008

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 11 Jul 2008 VOL 149 ISS 3

FILE LAST UPDATED: 10 Jul 2008 (20080710/ED)

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s hirst j/au
L1 35 HIRST J/AU

=> e hirst j/au
E1 2 HIRST IAN D/AU
E2 1 HIRST IAN J/AU
E3 35 --> HIRST J/AU
E4 7 HIRST J A/AU
E5 1 HIRST J C/AU
E6 6 HIRST J D/AU
E7 1 HIRST J E/AU
E8 4 HIRST J F/AU
E9 14 HIRST J J/AU
E10 6 HIRST J M/AU
E11 1 HIRST J N/AU
E12 1 HIRST J P/AU

=> s e3
L2 35 "HIRST J"/AU

=> d scan ibib 1-35
'1-35' IS NOT A VALID FORMAT FOR FILE 'HCAPLUS'

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
CC 71-10 (Nuclear Technology)
Section cross-reference(s): 48
TI Handling high activity components on the SNS

ST spallation neutron source active component remote handling design
 IT Materials handling
 (handling of highly active components at spallation neutron source)
 IT Proton accelerators
 (neutron generators; handling of highly active components at spallation
 neutron source)
 IT Neutron generators
 (proton accelerators; handling of highly active components at
 spallation neutron source)
 IT Nuclear reactions
 (spallation; handling of highly active components at spallation neutron
 source)

The following are valid formats:

ABS ----- GI and AB
 ALL ----- BIB, AB, IND, RE
 APPS ----- AI, PRAI
 BIB ----- AN, plus Bibliographic Data and PI table (default)
 CAN ----- List of CA abstract numbers without answer numbers
 CBIB ----- AN, plus Compressed Bibliographic Data
 CLASS ----- IPC, NCL, ECLA, FTERM
 DALL ----- ALL, delimited (end of each field identified)
 DMAX ----- MAX, delimited for post-processing
 FAM ----- AN, PI and PRAI in table, plus Patent Family data
 FBIB ----- AN, BIB, plus Patent FAM
 IND ----- Indexing data
 IPC ----- International Patent Classifications
 MAX ----- ALL, plus Patent FAM, RE
 PATS ----- PI, SO
 SAM ----- CC, SX, TI, ST, IT
 SCAN ----- CC, SX, TI, ST, IT (random display, no answer numbers;
 SCAN must be entered on the same line as the DISPLAY,
 e.g., D SCAN or DISPLAY SCAN)
 STD ----- BIB, CLASS

 IABS ----- ABS, indented with text labels
 IALL ----- ALL, indented with text labels
 IBIB ----- BIB, indented with text labels
 IMAX ----- MAX, indented with text labels
 ISTD ----- STD, indented with text labels

 OBIB ----- AN, plus Bibliographic Data (original)
 OIBIB ----- OBIB, indented with text labels

 SBIB ----- BIB, no citations
 SIBIB ----- IBIB, no citations

 HIT ----- Fields containing hit terms
 HITIND ----- IC, ICA, ICI, NCL, CC and index field (ST and IT)
 containing hit terms
 HITRN ----- HIT RN and its text modification
 HITSTR ----- HIT RN, its text modification, its CA index name, and
 its structure diagram
 HITSEQ ----- HIT RN, its text modification, its CA index name, its
 structure diagram, plus NTE and SEQ fields
 FHITSTR ----- First HIT RN, its text modification, its CA index name, and
 its structure diagram
 FHITSEQ ----- First HIT RN, its text modification, its CA index name, its
 structure diagram, plus NTE and SEQ fields

KWIC ----- Hit term plus 20 words on either side
OCC ----- Number of occurrence of hit term and field in which it occurs

To display a particular field or fields, enter the display field codes. For a list of the display field codes, enter HELP DFIELDS at an arrow prompt (=>). Examples of formats include: TI; TI,AU; BIB,ST; TI,IND; TI,SO. You may specify the format fields in any order and the information will be displayed in the same order as the format specification.

All of the formats (except for SAM, SCAN, HIT, HITIND, HITRN, HITSTR, PHITSTR, HITSEQ, PHITSEQ, KWIC, and OCC) may be used with DISPLAY ACC to view a specified Accession Number.

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):all
'ALL' IS NOT VALID HERE

To display more answers, enter the number of answers you would like to see. To end the display, enter "NONE", "N", "0", or "END".
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):34

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
CC 6-1 (General Biochemistry)
Section cross-reference(s): 9
TI Voltammetric studies of bidirectional catalytic electron transport in Escherichia coli succinate dehydrogenase: comparison with the enzyme from beef heart mitochondria
ST succinate dehydrogenase electron transport Escherichia mitochondria; voltammetry succinate dehydrogenase electron transport Escherichia
IT Protein sequences
(alignment; voltammetric studies of bidirectional catalytic electron transport in Escherichia coli succinate dehydrogenase in relation to the enzyme from beef heart mitochondria)
IT Electrode reaction
Electron transport
Redox potential
Reduction potential
Voltammetry
pH
(voltammetric studies of bidirectional catalytic electron transport in Escherichia coli succinate dehydrogenase in relation to the enzyme from beef heart mitochondria)
IT 9002-02-2, Succinate dehydrogenase
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); BIOL (Biological study); PROC (Process)
(voltammetric studies of bidirectional catalytic electron transport in Escherichia coli succinate dehydrogenase in relation to the enzyme from beef heart mitochondria)
IT 110-15-6, Butanedioic acid, biological studies 110-17-8, 2-Butenedioic acid (2E)-, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(voltammetric studies of bidirectional catalytic electron transport in Escherichia coli succinate dehydrogenase in relation to the enzyme from beef heart mitochondria)
IT 146-14-5, Fad
RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)
(voltammetric studies of bidirectional catalytic electron transport in Escherichia coli succinate dehydrogenase in relation to the enzyme from

beef heart mitochondria)

- L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
CC 20-3 (History, Education, and Documentation)
Section cross-reference(s): 40
TI A chromatographic investigation of industrial dyes
ST dye chromatog lab expt
IT Dyes
(TLC of, laboratory experiment in)
IT Laboratory experiment
(in TLC of dyes)
IT Chromatography, thin-layer
(of dyes)
- L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
CC 22 (Physical Organic Chemistry)
TI Effect of electron-withdrawing substituents from the meta and para
positions in aromatic nucleophilic replacement reactions
ST arom nucleophilic substitution; fluorobenzenes substitution; kinetics
substitution fluorobenzenes
IT Kinetics of methanolysis
(of fluorobenzene derivs.)
IT Substituent effect
(of fluorobenzene derivs., methanolysis in relation to)
IT 401-80-9 402-44-8 455-15-2 657-46-5 35564-19-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(methanolysis of, kinetics of)
- L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
CC 22 (Physical Organic Chemistry)
TI Aromatic nucleophilic replacement. XVI. Reactions of o-fluoro- and
p-fluoronitrobenzene and 1-fluoro-3,5-dinitrobenzene with sulfite ions,
and of o- and p-fluoronitrobenzene with isopropoxide ions
ST sulfite ion fluoronitrobenzene reaction; isopropoxide ion
fluoronitrobenzene reaction; fluoronitrobenzene reaction isopropoxide ion
IT Entropy
(of activation, of substitution reactions of fluoronitrobenzene
derivs.)
IT Activation energy of substitution reactions
Kinetics of substitution reactions
Substitution reactions
(of fluorine by sulfite ion in fluoronitrobenzene derivs.)
IT Isopropoxy group
(substitution reactions of, for fluorine in fluoronitrobenzene derivs.)
IT 7782-41-4, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(substitution reactions of, by sulfite ion in fluoronitrobenzene
derivs.)
IT 14265-45-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(substitution reactions of, for fluorine in fluoronitrobenzene derivs.)
IT 350-46-9 369-18-6 1493-27-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(substitution reactions of, mechanism of)
- L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
CC 22 (Physical Organic Chemistry)
TI Aromatic nucleophilic replacement. XIII. Reactions of nitroanilines with
picryl chloride in methanol
ST arom nucleophilic substitution; nucleophilic substitution arom; nitro
anilines picryl chloride; picryl chloride nitro anilines; anilines nitro

picryl chloride
 IT Activation energy
 (of aniline nitro derivs. reaction with picryl chloride)
 IT Kinetics, reaction
 (of aniline nitro derivs. with picryl chloride)
 IT 99-09-2P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 IT 88-88-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with aniline nitro derivs.)
 IT 100-01-6 618-87-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with picryl chloride)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 22 (Physical Organic Chemistry)
 TI Aromatic nucleophilic substitution. XI. Effect of meta substituents
 ST NUCLEOPHILIC REPLACEMENT; META SUBSTITUENT EFFECT; REPLACEMENT
 NUCLEOPHILIC; SUBSTITUENT META EFFECT; EFFECT META SUBSTITUENT
 IT Activation energy
 Kinetics, reaction
 (of 1-fluoro-3-nitrobenzene derivs. with methoxide ion)
 IT 369-18-6 402-67-5 454-72-8 454-73-9 499-08-1 2265-94-3
 2369-12-2 3819-88-3 4815-64-9 7087-27-6 7087-60-7 7087-61-8
 7087-65-2 14027-75-9
 RL: PRP (Properties)
 (reaction with methoxide ion, kinetics of)
 IT 3315-60-4, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (with 1-fluoro-3-nitrobenzene derivs., kinetics of)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 32 (Physical Organic Chemistry)
 TI Aromatic nucleophilic substitution. IX. The reaction of
 1-halo-2,4-dinitrobenzenes with sulfite ion in aqueous ethanol
 IT Activation energy, Heat of activation
 Frequency factor, Preexponential factor
 (of 1-halo-2,4-dinitrobenzene reaction with sulfites)
 IT Reaction kinetics and(or) Velocity
 (of 1-halo-2,4-dinitrobenzenes with sulfites)
 IT Sulfites
 (reaction with 1-halo-2,4-dinitrobenzenes)
 IT 64-17-5, Ethyl alcohol
 (1-halo-2,4-dinitrobenzene reaction with sulfites in)
 IT 97-00-7, Benzene, 1-chloro-2,4-dinitro-
 (reaction of, with sulfite ion)
 IT 70-34-8, Benzene, 1-fluoro-2,4-dinitro- 100-00-5, Benzene,
 1-chloro-4-nitro- 584-48-5, Benzene, 1-bromo-2,4-dinitro- 709-49-9,
 Benzene, 1-iodo-2,4-dinitro-
 (reaction with sulfite ion)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 10J (Organic Chemistry: Steroids)
 TI West African timbers. III. Petroleum extracts from the genus
 Entandrophragma
 IT Wood
 (West African)
 IT Nomenclature
 ('` angolensic acid'' `` entandrophragmin'' and `` gedunin'')
 IT Entandrophragma

(ligroine exts. of)

IT Infrared spectra
Ultraviolet and visible, spectra
(of carda-1,4,20(22)-trienolides and intermediates)

IT Infrared spectra
Ultraviolet and visible, spectra
(of Entandrophragma ligroine extractives)

IT 31218-22-1, Utilin
(from Entandrophragma heartwood)

IT 83-46-5, β -Sitosterol 2629-14-3, Angolensic acid, methyl ester
2753-30-2, Gedunin 3242-10-2, Angolensic acid
(in Entandrophragma ligroine extracts)

IT 11013-05-1, Entandrophragmin
(in Entandrophragma ligroine exts.)

IT 2629-11-0P, Oxireno[c]phenanthro[1,2-d]pyran-3,8(3aH,4bH)-dione,
5-(acetyloxy)-1-(3-furanyl)dodecahydro-4b,7,7,10a,12a-pentamethyl-
101295-12-9P, 5 β -Carda-1,20(22)-dienolide, 14-hydroxy-3-oxo-
116956-84-4P, Carda-4,20(22)-dienolide, 14,16 β -(dihydroxy-3-oxo-
117000-03-0P, 5 β -Carda-1,20(22)-dienolide, 14,16 β -dihydroxy-3-
oxo- 119186-29-7P, Carda-1,4,20(22)-trienolide, 14,16 β -dihydroxy-3-
oxo-, 16-acetate 119248-83-8P, Carda-1,4,20(22)-trienolide,
14,16 β -dihydroxy-3-oxo- 122174-94-1P, 5 β -Carda-1,20(22)-
dienolide, 14,16 β -dihydroxy-3-oxo-, 16-acetate 122174-95-2P,
Carda-4,20(22)-dienolide, 14,16 β -(dihydroxy-3-oxo-, 16-acetate
RL: PREP (Preparation)
(preparation of)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN

CC 10 (Organic Chemistry)

TI Studies in aromatic nucleophilic replacement. VI. Some effects of alkyl
groups

IT Substitution
(aromatic)

IT Alkyl groups
(effect on aromatic nucleophilic substitution)

IT Steric effects or Steric factors
(in alkylfluoronitrobenzenes)

IT Frequency factor
(of replacement of F in benzene derivs. of MeO)

IT Reaction kinetics and(or) velocity
(of substitution (nucleophilic), of F in benzene derivs. by MeO)

IT Methoxy group
(reactions of, with alkylfluoronitrobenzene, kinetics of)

IT Benzene, 1-tert-butyl-2-fluoro-2-nitro-
Benzene, 1-tert-butyl-4-fluoro-4-nitro-
Toluene, 2-fluoro-2-nitro-
Toluene, 4-fluoro-4-nitro-
RL: PREP (Preparation)

IT 19878-55-8, Benzenesulfonic acid, 4,4'-thiodi-
(derivs.)

IT 446-10-6P, Toluene, 4-fluoro-2-nitro- 454-72-8P, Benzene,
1-tert-butyl-3-fluoro-5-nitro- 489-18-9P, Benzene, 1-tert-butyl-2-fluoro-
4-nitro- 499-08-1P, Toluene, 3-fluoro-5-nitro- 610-18-4P, Benzene,
1-tert-butyl-4-fluoro-2-nitro- 621-85-2P, Pseudourea, 2-benzyl-2-thio-,
comps. with o-(phenylthio)benzenesulfonic acid and
(phenylthio)benzenesulfonic acids 1427-07-2P, Toluene, 2-fluoro-4-nitro-
22385-63-3P, Benzene, 1-tert-butyl-3,5-dinitro- 22503-15-7P,
Acetanilide, 4'-tert-butyl-2',6'-dinitro- 102316-81-4P, Benzenesulfonic
acid, o-(phenylthio)-, compound with 2-benzyl-2-thiopseudourea
103392-84-3P, Aniline, 2-tert-butyl-5-nitro- 105336-94-5P, Acetanilide,
3'-tert-butyl-5'-nitro- 110245-61-9P, Benzenesulfonic acid,

o-(phenylthio)-, compound with 2-benzyl-2-thiopseudourea 500878-03-5P,
Aniline, 3-tert-butyl-5-nitro-
RL: PREP (Preparation)
(preparation of)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
CC 10 (Organic Chemistry)
TI Nucleophilic activity towards an aromatic carbon atom
IT Substitution
(nucleophilic, in benzene ring)
IT Reaction kinetics and(or) velocity
(of substitution (nucleophilic), in benzene derivs.)
IT Benzene ring
(substitution in, nucleophilic)
IT 71-43-2, Benzene
(derivatives, substitution (nucleophilic) in)
IT 350-46-9, Benzene, 1-fluoro-4-nitro-
(reaction with nucleophilic reagents, kinetics of)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
CC 7-0 (Enzymes)
TI Energy transduction by respiratory complex I - an evaluation of current
knowledge
ST review energy transduction respiratory complex I; mitochondria electron
transport complex review
IT Electron transport system, biological
(mechanism and energy transduction by respiratory complex I)
IT 9028-04-0, Complex I (mitochondrial electron transport)
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(mechanism and energy transduction by respiratory complex I)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
CC 2-0 (Mammalian Hormones)
TI Myometrial activation and preterm labour: evidence supporting a role for
the prostaglandin F receptor-a review
ST review myometrium preterm labour prostaglandin F receptor
IT Uterus
(myometrium; role of prostaglandin F receptor in myometrial activation
and preterm labour)
IT Parturition disorders
(premature parturition; role of prostaglandin F receptor in myometrial
activation and preterm labour)
IT Human
(role of prostaglandin F receptor in myometrial activation and preterm
labour)
IT Prostanoid receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(type FP; role of prostaglandin F receptor in myometrial activation and
preterm labour)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
CC 2-0 (Mammalian Hormones)
TI Prostaglandins and parturition
ST review prostaglandin amnion parturition; synthase prostaglandin H
parturition review
IT Amnion
Parturition
(prostaglandins and prostaglandin H synthase of human amnion in
periparturient period)
IT Prostaglandins
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL

(Biological study); PROC (Process)
 (prostaglandins and prostaglandin H synthase of human amnion in periparturient period)

IT 39391-18-9, Prostaglandin H synthase
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (prostaglandins and prostaglandin H synthase of human amnion in periparturient period)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 22-3 (Physical Organic Chemistry)

TI Kinetics of the reactions of piperidine, n-butylamine, morpholine, and benzylamine with 2,4-dinitrophenyl phenyl ether

ST amine substitution nitrophenyl ether; kinetics amination nitrophenyl ether

IT Kinetics of amination
 (of dinitrophenyl Ph ether)

IT 100-46-9, reactions 109-73-9, reactions 110-89-4, reactions 110-91-8, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (amination by, of dinitrophenyl Ph ether, kinetics of)

IT 2486-07-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (amination of, kinetics of)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 22 (Physical Organic Chemistry)

TI Ortho:para ratio in aromatic nucleophilic substitution

ST arom nucleophilic substitution; nucleophilic substitution arom; ortho activation nucleophilic substitution; para activation nucleophilic substitution; substituent effect arom nucleophilic substitution

IT Substituents
 (in benzene derivs., substitution reaction with methoxide in relation to)

IT Kinetics of substitution reactions
 (of methoxide with benzene derivs., substituent effect in)

IT 3315-60-4, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with benzene derivs., kinetics of, substituent effect in)

IT 350-46-9 446-35-5 1493-27-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (substitution reaction of, with methoxide, kinetics of)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 22 (Physical Organic Chemistry)

TI Kinetics of some of the reactions of 2-fluoro- and 2-chloro-5-nitropyridines and 1-fluoro- and 1-chloro-2,4-dinitrobenzenes with aniline and piperidine in acetone and methanol

ST nitropyridine aniline reaction; aniline nitropyridine reaction; pyridines nitro aniline reaction; benzenes nitro aniline reaction; arom nucleophilic reaction; nucleophilic arom reaction

IT Kinetics, reactions
 (of amines with dinitrobenzene and nitropyridine halo derivs.)

IT Activation energy
 (of aniline reactions with nitropyridine halo derivs.)

IT 70-34-8 97-00-7 456-24-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reactions of, with amines)

IT 4548-45-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reactions of, with aniline)

IT 62-53-3, reactions 110-89-4, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)
(with dinitrobenzene and nitropyridine halo derivs., kinetics of)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
CC 22 (Physical Organic Chemistry)
TI Aromatic nucleophilic replacement. XII. Reaction of 1-halo-2,4-
dinitrobenzenes and 2-halo-5-nitropyridines with amines in acetone
ST nucleophilic amines halo benzenes; amines halo benzenes nucleophilic; halo
benzenes nucleophilic amines; benzenes nucleophilic amines halo; pyridines
halo amines displacement; displacement pyridines halo amines
IT Activation energy
(of amine reactions with halodinitrobenzene derivs.)
IT Kinetics, reaction
(of amines with halodinitrobenzene derivs.)
IT Pyridine, with halodinitrobenzene derivs., reactions
RL: PRP (Properties)
(kinetics of)
IT 70-34-8 97-00-7 456-24-6 4548-45-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with amines, kinetics of)
IT 62-53-3, reactions 110-89-4, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(with halodinitrobenzene derivs., kinetics of)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
CC 32 (Physical Organic Chemistry)
TI Effect of meta-substituents on aromatic nucleophilic substitution
IT Substituents
(fluorobenzene derivative reaction with methoxide ion in relation to)
IT Reaction kinetics and(or) Velocity
Substitution reactions
(of fluoro benzenes with methoxide ion)
IT Methoxides
(reaction with fluorobenzene)
IT 71-43-2, Benzene
(derivatives, fluoro, reaction with methoxide ion, effect of
substituents on)
IT 4815-64-9, Benzene, 1-chloro-3-fluoro-5-nitro-
(reaction with methoxide ion kinetics of)
IT 454-73-9, Toluene, $\alpha,\alpha,\alpha,3$ -tetrafluoro-5-nitro- 2369-12-2, Aniline,
2265-94-3, Benzene, 1,3-difluoro-5-nitro- 7087-60-7, Anisole,
3-fluoro-5-nitro- 3819-88-3, Benzene, 1-fluoro-3-iodo-5-nitro-
7087-27-6, Sulfone, 3-fluoro-5-nitrophenyl methyl 7087-60-7, Anisole,
3-fluoro-5-nitro- 7087-61-8, Acetophenone, 3'-fluoro-5'-nitro-
7087-65-2, Benzene, 1-bromo-3-fluoro-5-nitro- 14027-75-9, Benzoic acid,
3-fluoro-5-nitro-
(reaction with methoxide ion, kinetics of)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
CC 32 (Physical Organic Chemistry)
TI Hydrogen bonding in the transition state of aromatic nucleophilic
replacement
IT Substitution reactions
(in aromatic compds., H bonding and)
IT Hydrogen bonds
(in aromatic compds., nucleophilic displacement reactions and)
IT Reaction kinetics and(or) Velocity
(of aniline and pyridine with 2-chloro-1,3-dinitrobenzene and
2-fluoro-1,3-dinitrobenzene)
IT 71-43-2, Benzene
(derivatives, halo, displacement reactions of, H bonds and)

IT 62-53-3, Aniline
(reaction of, with 2-chloro-1,3-dinitrobenzene and 2-fluoro-1,3-dinitrobenzene, kinetics of)

IT 110-86-1, Pyridine
(reaction with 2-chloro-1,3-dinitrobenzene and 2-fluoro-1,3-dinitrobenzene, kinetics of)

IT 573-55-7, Benzene, 2-fluoro-1,3-dinitro- 606-21-3, Benzene,
2-chloro-1,3-dinitro-
(reaction with PhNH2 and pyridine, kinetics of)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
CC 11D (Biological Chemistry: Botany)
TI West African timbers. II. Heartwood constituents of the genus Pterocarpus
IT Pterocarpus
(composition of heartwood of)

IT 524-97-0, Pterocarpin 529-60-2, Isoflavone, 3',4',5-trihydroxy-7-methoxy-
606-91-7, Homopterocarpin 642-39-7, Propiophenone,
2',4'-dihydroxy-2-(p-methoxyphenyl)- 4339-72-4, Olean-12-en-28-oic acid,
3 β -hydroxy-, acetate
(in Pterocarpus heartwood)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
CC 17 (Pharmaceuticals, Cosmetics, and Perfumes)
TI A convulsant alkaloid of Dioscorea dumetorum
IT Yams
(alkaloids of)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
CC 14 (Water, Sewage, and Sanitation)
TI Experimental work to improve the performance of a bio-aeration plant for
sewage
IT Sewage
(aeration of, improving performance of plant for)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
CC 3-4 (Biochemical Genetics)
Section cross-reference(s): 14
TI Multiple mechanisms are implicated in the generation of 5q35
microdeletions in Sotos syndrome
ST chromosome 5q35 microdeletion mutation NSD1 Sotos syndrome human
IT Gene, animal
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(NSD1; repetitive elements and rearrangements of paternally inherited
chromosome associated with 5q35 NSD1 microdeletions in Sotos syndrome)

IT Repetitive DNA
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(REPcen, REPTel, REPMid elements; repetitive elements and
rearrangements of paternally inherited chromosome associated with 5q35
NSD1 microdeletions in Sotos syndrome)

IT Disease, animal
(Sotos syndrome; repetitive elements and rearrangements of paternally
inherited chromosome associated with 5q35 NSD1 microdeletions in Sotos
syndrome)

IT Mutation
(deletion; repetitive elements and rearrangements of paternally
inherited chromosome associated with 5q35 NSD1 microdeletions in Sotos
syndrome)

IT Chromosome
(human 5, q35; repetitive elements and rearrangements of paternally
inherited chromosome associated with 5q35 NSD1 microdeletions in Sotos
syndrome)

IT Genetic inheritance
(paternal; repetitive elements and rearrangements of paternally inherited chromosome associated with 5q35 NSD1 microdeletions in Sotos syndrome)

IT Recombination, genetic
(rearrangement; repetitive elements and rearrangements of paternally inherited chromosome associated with 5q35 NSD1 microdeletions in Sotos syndrome)

IT Human
(repetitive elements and rearrangements of paternally inherited chromosome associated with 5q35 NSD1 microdeletions in Sotos syndrome)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN

CC 15-8 (Immunochemistry)

TI Analysis of single-nucleotide polymorphisms in the interleukin-4 receptor gene for association with inflammatory bowel disease

ST Crohn disease IL4 receptor genetic polymorphism susceptibility

IT Intestine, disease
(Crohn's; nucleotide polymorphisms in IL-4 receptor gene in inflammatory bowel disease)

IT DNA sequences
Genetic linkage
Susceptibility (genetic)
(nucleotide polymorphisms in IL-4 receptor gene in inflammatory bowel disease)

IT Interleukin 4 receptors
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)
(nucleotide polymorphisms in IL-4 receptor gene in inflammatory bowel disease)

IT Intestine, disease
(ulcerative colitis; nucleotide polymorphisms in IL-4 receptor gene in inflammatory bowel disease)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN

CC 22-4 (Physical Organic Chemistry)

TI Mechanisms of aromatic nucleophilic substitution reactions in ethyl acetate and tetrahydrofuran

ST ethyl acetate mechanism nucleophilic substitution; solvent effect mechanism nucleophilic substitution; THF mechanism arom nucleophile substitution

IT Amines, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(aromatic nucleophilic substitution of, with halo- or phenoxydinitrobenzenes, kinetics and mechanism of)

IT Solvent effect
(on aromatic nucleophilic substitution reactions of halo- or phenoxydinitrobenzenes with amines)

IT Substitution reaction, nucleophilic
(aromatic, of halo- or phenoxydinitrobenzenes with amines, mechanism of)

IT Kinetics of substitution reaction
(nucleophilic, aromatic, of halo- or phenoxydinitrobenzenes with amines, solvent effects on)

IT 70-34-8, 1-Fluoro-2,4-dinitrobenzene 97-00-7 2486-07-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(aromatic nucleophilic substitution of, with amines, solvent effects in relation to kinetics and mechanism of)

IT 100-46-9, Benzenemethanamine, reactions 109-73-9, 1-Butanamine, reactions 110-89-4, Piperidine, reactions 110-91-8, Morpholine, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)

(aromatic nucleophilic substitution reaction of, with halo- or phenoxydinitrobenzenes, kinetics and mechanism of)

IT 110-89-4, Piperidine, uses and miscellaneous 280-57-9, 1,4-Diazabicyclo[2.2.2]octane
 RL: PRP (Properties)
 (effect of, on aromatic nucleophilic substitution reactions of amines with halo- or phenoxydinitrobenzenes, solvent effects and)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 22-3 (Physical Organic Chemistry)
 TI Ortho-para ratio in aromatic nucleophilic substitution. I.
 ST arom nucleophilic substitution kinetics; nitrobenzene nucleophilic substitution; halobenzene nucleophilic substitution; benzene halonitro substitution kinetics

IT Substitution reaction
 (nucleophilic, of nitrobenzene halo derivs. with alkoxide ions)

IT Kinetics of substitution reaction
 (of nitrobenzene halo derivs. with alkoxide ions)

IT 88-73-3 100-00-5 350-46-9 446-35-5 611-06-3 1493-27-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (nucleophilic substitution of, by alkoxide ions)

IT 40422-90-0P 40422-91-1P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

IT 3315-60-4, reactions 15520-32-8 16331-64-9, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (substitution reaction of, with nitrobenzene halo derivs.)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 22 (Physical Organic Chemistry)
 TI Aromatic nucleophilic replacement. XV. Kinetics of the reactions of aniline with 1-fluoro and 1-chloro-2, 4-dinitrobenzenes in anhydrous acetone

ST halobenzenes reaction aniline; aniline reaction halobenzenes; fluorobenzenes reaction aniline; chlorobenzenes reaction aniline; arom nucleophilic reaction kinetics; nucleophilic reaction kinetics arom; kinetics arom nucleophilic reaction

IT Kinetics of amination
 (of dinitrobenzene halo derivs.)

IT Amination
 (of dinitrobenzene halo derivs., mechanism of)

IT 62-53-3, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (amination by, of dinitrobenzene halo derivs.)

IT 70-34-8 97-00-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (amination of, with aniline, kinetics of)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 73 (Spectra and Other Optical Properties)
 TI Fluorine nuclear magnetic resonance spectra of some meta-substituted fluorobenzenes

ST fluorine NMR; NMR F; fluorobenzenes NMR; benzenes fluoro NMR

IT Defluorination
 (methoxy, of fluorobenzene meta-substituted derivs., N.M.R. in relation to)

IT Substituent constants
 (of fluorobenzene meta-substituted derivs., N.M.R. in relation to)

IT Nuclear magnetic resonance
 (of fluorobenzene meta-substituted derivs., substituent consts. in relation to)

IT 462-06-6D, Benzene, fluoro-, derivs.
 RL: PRP (Properties)
 (nuclear magnetic resonance of, substituent consts. in relation to)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 22 (Physical Organic Chemistry)

TI Aromatic nucleophilic replacement. XIV. Mode of transmission of the inductive effect in the benzene ring and the relative activating power of the +NMe2O-, +NMe3, and NO2 groups in aromatic nucleophilic replacement reactions

ST NUCLEOPHILIC SUBSTITUTION AROM; AROM NUCLEOPHILIC SUBSTITUTION; SUBSTITUTION NUCLEOPHILIC AROM

IT Activation energy
 (of methoxide ion reaction with fluoronitroanilines)

IT Kinetics, reaction
 (of methoxide ion with fluoronitroaniline derivs.)

IT 19127-34-5 19127-35-6 19128-26-8 19128-27-9 19128-28-0
 20319-54-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with methoxide ion, kinetics of)

IT 3315-60-4, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (with fluoronitroaniline derivs., kinetics of)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 35 (Noncondensed Aromatic Compounds)

TI Aromatic nucleophilic substitution. X. Products of reactions of alkali halides with 1-halo-2,4-dinitrobenzenes and picryl chloride in anhydrous acetone

IT 99-35-4
 (Derived from data in the 7th Collective Formula Index (1962-1966))

IT 67-64-1, Acetone
 (alkali halide reaction with 1-halo-2,4-dinitrobenzene and picryl chloride in presence of)

IT 97-00-7, Benzene, 1-chloro-2,4-dinitro-
 (reaction of, with LiCl)

IT 7447-41-8, Lithium chloride
 (reaction with 1-chloro-2,4-dinitrobenzene)

IT 7681-82-5, Sodium iodide
 (reaction with 1-fluoro-2,4-dinitrobenzene and picryl chloride)

IT 70-34-8, Benzene, 1-fluoro-2,4-dinitro-
 (reaction with NaI)

IT 88-88-0, Benzene, 2-chloro-1,3,5-trinitro-
 (reactions with NaI)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 10E (Organic Chemistry: Benzene Derivatives)

TI Aromatic nucleophilic replacement. VII. The reaction of N,N-dialkyl-p-nitrosoanilines with aqueous-methanolic alkali

IT Activation energy
 (Heat of activation, of reactions, of alkalies with N,N-dialkyl-p-nitrosoanilines)

IT Substitution
 (aromatic)

IT Reaction kinetics and(or) velocity
 (of alkalies with N,N-dialkyl-p-nitrosoanilines)

IT Dielectric constants
 (of methanol-water solvent, effect on alkali reaction with N,N-dialkyl-p-nitrosoanilines)

IT Alkalies
 (reactions of, with N,N-dialkyl-p-nitrosoanilines)

IT 67-56-1, Methanol
 (alkali reaction with N,N-dialkyl-p-nitrosoanilines in aqueous)

IT 7732-18-5, Water
 (effect on alkali reaction with N,N-dialkyl-p-nitrosoanilines)

IT 104-91-6P, Phenol, p-nitroso-
 RL: PREP (Preparation)
 (formation from N,N-dimethyl-p-nitrosoaniline)

IT 120-22-9, Aniline, N,N-diethyl-p-nitroso- 138-89-6, Aniline,
 N,N-dimethyl-p-nitroso- 36479-98-8, Aniline, N-ethyl-N-methyl-p-nitroso-
 (reaction with alkalies)

IT 659-49-4, Aniline, p-nitroso-
 (N,N-dialkyl, reaction with alkalies)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 10 (Organic Chemistry)

TI A convulsant alkaloid of Dioscorea dumetorum

IT Yams
 (alkaloid from D. dumetorum)

IT Alkaloids
 (from Dioscorea dumetorum)

IT Convulsions
 (from Dioscorea dumetorum alkaloid)

IT 469-45-4 4135-62-0 108950-53-4 109215-31-8 109405-17-6
 109405-18-7 109438-60-0 109499-09-4 109526-91-2 114984-53-1
 114984-54-2 116179-87-4 124152-44-9 124383-06-8 124383-07-9
 130931-57-6
 (Derived from data in the 6th Collective Formula Index (1957-1961))

IT 96552-66-8, Dioscorine, dihydro-
 (and derivs., alkaloid from Dioscorea dumetorum in relation to)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 2 (General and Physical Chemistry)

TI Studies in aromatic nucleophilic substitution. IV. Relative nucleophilic
 powers of common reagents

IT Solvents
 (aromatic nucleophilic substitution and)

IT Chlorides
 (exchange of, with picryl chloride)

IT Substitution
 Substitution
 (of methoxy group in benzene derivs.)

IT Reactivity
 (of reagents with nucleophilic power toward aromatic C atom in MeOH)

IT Heat of activation
 (of substitution (aromatic nucleophilic))

IT Frequency factor
 (of substitution (aromatic nucleophilic) in MeOH)

IT Reaction kinetics and(or) velocity
 (of substitution (nucleophilic aromatic))

IT Methoxy group
 (reaction with p-FC6H4NO2)

IT 67-56-1, Methanol
 (effect on aromatic nucleophilic substitution)

IT 7447-41-8, Lithium chloride
 (exchange with picryl chloride)

IT 99-09-2, Aniline, m-nitro-
 (reaction with picryl chloride)

IT 930-69-8, Benzenethiol, sodium derivative
 (reaction with p-FC6H4NO2)

IT 62-53-3, Aniline
 (reaction with p-FC6H4NO2 or picryl chloride)

IT 67-56-1, Methanol
 (substitution (aromatic nucleophilic) in)
 IT 88-88-0, Picryl chloride
 (substitution (aromatic nucleophilic) of, kinetics of)
 IT 97-00-7, Benzene, 1-chloro-2,4-dinitro-
 (substitution (nucleophilic) in)
 IT 350-46-9, Benzene, 1-fluoro-4-nitro-
 (substitution in, kinetics of)

L2 35 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 14 (Water, Sewage, and Sanitation)
 TI Experiments on dewatering humus and activated sludges
 IT Sewage
 (drying sludge and its mixtures with humus and primary and secondary
 sludges)
 IT Humus or Humic substances
 (mixts. with activated sludges, drying)
 IT Fertilizers
 (sewage or sewage sludges as, effect of drying on)

ALL ANSWERS HAVE BEEN SCANNED

=> logoff

ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF

LOGOFF? (Y)/N/HOLD:y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

16.14

16.35

STN INTERNATIONAL LOGOFF AT 14:47:34 ON 11 JUL 2008

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTAPCM1655

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	JAN 02	STN pricing information for 2008 now available
NEWS	3	JAN 16	CAS patent coverage enhanced to include exemplified prophetic substances
NEWS	4	JAN 28	USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS	5	JAN 28	MARPAT searching enhanced
NEWS	6	JAN 28	USGENE now provides USPTO sequence data within 3 days of publication
NEWS	7	JAN 28	TOXCENTER enhanced with reloaded MEDLINE segment
NEWS	8	JAN 28	MEDLINE and LMEDLINE reloaded with enhancements
NEWS	9	FEB 08	STN Express, Version 8.3, now available

NEWS 10 FEB 20 PCI now available as a replacement to DPCI
 NEWS 11 FEB 25 IFIREF reloaded with enhancements
 NEWS 12 FEB 25 IMSPRODUCT reloaded with enhancements
 NEWS 13 FEB 29 WFINDEX/WPIDS/WPIX enhanced with ECLA and current
 U.S. National Patent Classification
 NEWS 14 MAR 31 IFICDB, IFIPAT, and IFIUDB enhanced with new custom
 IPC display formats
 NEWS 15 MAR 31 CAS REGISTRY enhanced with additional experimental
 spectra
 NEWS 16 MAR 31 CA/Caplus and CASREACT patent number format for U.S.
 applications updated
 NEWS 17 MAR 31 LPCI now available as a replacement to LDPCI
 NEWS 18 MAR 31 EMBASE, EMBAL, and LEMBASE reloaded with enhancements
 NEWS 19 APR 04 STN AnaVist, Version 1, to be discontinued
 NEWS 20 APR 15 WPIDS, WFINDEX, and WPIX enhanced with new
 predefined hit display formats
 NEWS 21 APR 28 EMBASE Controlled Term thesaurus enhanced
 NEWS 22 APR 28 IMSRESEARCH reloaded with enhancements
 NEWS 23 MAY 30 INPAFAMDB now available on STN for patent family
 searching
 NEWS 24 MAY 30 DGENE, PCTGEN, and USGENE enhanced with new homology
 sequence search option
 NEWS 25 JUN 06 EPFULL enhanced with 260,000 English abstracts
 NEWS 26 JUN 06 KOREAPAT updated with 41,000 documents
 NEWS 27 JUN 13 USPATFULL and USPAT2 updated with 11-character
 patent numbers for U.S. applications
 NEWS 28 JUN 19 CAS REGISTRY includes selected substances from
 web-based collections
 NEWS 29 JUN 25 CA/Caplus and USPAT databases updated with IPC
 reclassification data
 NEWS 30 JUN 30 AEROSPACE enhanced with more than 1 million U.S.
 patent records
 NEWS 31 JUN 30 EMBASE, EMBAL, and LEMBASE updated with additional
 options to display authors and affiliated
 organizations
 NEWS 32 JUN 30 STN on the Web enhanced with new STN AnaVist
 Assistant and BLAST plug-in
 NEWS 33 JUN 30 STN AnaVist enhanced with database content from EPFULL
 NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
 AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.
 NEWS HOURS STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN Welcome Banner and News Items
 NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

***** STN Columbus *****

FILE 'HOME' ENTERED AT 13:19:14 ON 14 JUL 2008

=> fil hcapl
 COST IN U.S. DOLLARS

SINCE FILE TOTAL

	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'HCAPLUS' ENTERED AT 13:19:39 ON 14 JUL 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 14 Jul 2008 VOL 149 ISS 3
FILE LAST UPDATED: 13 Jul 2008 (20080713/ED)

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> b capl		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	2.69	2.90

FILE 'CAPLUS' ENTERED AT 13:19:58 ON 14 JUL 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 14 Jul 2008 VOL 149 ISS 3
FILE LAST UPDATED: 13 Jul 2008 (20080713/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/legal/infopolicy.html>

=> e 2006-551144/apps
**** START OF FIELD ****

E3	0	--> 2006-551144/AP
E4	0	2006-551144/PRN
E5	1	AD2000-10003588/PRN
E6	1	AD2001-2185/PRN
E7	1	AD2002-10243254/PRN
E8	1	AD2003-352770/PRN
E9	9	AD2004-509935/PRN
E10	1	AE2000-40/PRN
E11	1	AE2003-186/PRN
E12	1	AE2003-274/PRN

=> fil hcapl
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.48	3.38

FULL ESTIMATED COST

FILE 'HCAPLUS' ENTERED AT 13:20:49 ON 14 JUL 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 14 Jul 2008 VOL 149 ISS 3
FILE LAST UPDATED: 13 Jul 2008 (20080713/ED)

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> e hirst j/au
E1 2 HIRST IAN D/AU
E2 1 HIRST IAN J/AU
E3 35 --> HIRST J/AU
E4 7 HIRST J A/AU
E5 1 HIRST J C/AU
E6 6 HIRST J D/AU
E7 1 HIRST J E/AU
E8 4 HIRST J F/AU
E9 14 HIRST J J/AU
E10 6 HIRST J M/AU
E11 1 HIRST J N/AU
E12 1 HIRST J P/AU

=> e hirst judy/au

```

E1      1      HIRST JONATHAN MICHAEL/AU
E2      2      HIRST JUDITH W/AU
E3      57 --> HIRST JUDY/AU
E4      8      HIRST K/AU
E5      2      HIRST K L/AU
E6      5      HIRST KAREN/AU
E7      3      HIRST KAREN L/AU
E8      1      HIRST KATE/AU
E9      6      HIRST KATHRYN/AU
E10     1      HIRST KENDALYN/AU
E11     2      HIRST KIM LOUISE/AU
E12     5      HIRST L/AU

```

=> s e3

```
L1      57 "HIRST JUDY"/AU
```

=> s L1 and (module or subunit or subcomplex)

```

69447 MODULE
33599 MODULES
88029 MODULE
      (MODULE OR MODULES)
172960 SUBUNIT
108511 SUBUNITS
227292 SUBUNIT
      (SUBUNIT OR SUBUNITS)
      791 SUBCOMPLEX
      495 SUBCOMPLEXES
      1125 SUBCOMPLEX
      (SUBCOMPLEX OR SUBCOMPLEXES)
L2      16 L1 AND (MODULE OR SUBUNIT OR SUBCOMPLEX)

```

=> d scan

```

L2      16 ANSWERS  HCAPLUS  COPYRIGHT 2008 ACS on STN
CC      3-3 (Biochemical Genetics)
      Section cross-reference(s): 7, 13
TI      Definition of the nuclear encoded protein composition of bovine heart
      mitochondrial complex I
ST      cattle mitochondria DNA B14 ESSS ubiquinone oxidoreductase transmembrane
      import
IT      Gene, animal
      RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
      (Biological study)
      (for ubiquinone reductase subunit B14.7; nuclear encoded
      protein composition of bovine heart mitochondrial complex I)
IT      Gene, animal
      RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
      (Biological study)
      (for ubiquinone reductase subunit ESSS; nuclear encoded
      protein composition of bovine heart mitochondrial complex I)
IT      Bos taurus
      Protein sequences
      cDNA sequences
      (nuclear encoded protein composition of bovine heart mitochondrial complex
      I)
IT      Biological transport
      (of B14.7 and ESSS subunits; nuclear encoded protein composition
      of bovine heart mitochondrial complex I)
IT      Mitochondria
      (organelle-specific enzyme subunits; nuclear encoded protein
      composition of bovine heart mitochondrial complex I)

```

IT Protein motifs
 (transmembrane domain, of B14.7 and ESSS subunits; nuclear encoded protein composition of bovine heart mitochondrial complex I)

IT 9028-04-0, Complex I (NADH: Q1 oxidoreductase)
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
 (B14.7 and ESSS subunits, genes for; nuclear encoded protein composition of bovine heart mitochondrial complex I)

IT 481508-21-8 501835-66-1
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
 (amino acid sequence; nuclear encoded protein composition of bovine heart mitochondrial complex I)

IT 465948-36-1 494391-25-2
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
 (nucleotide sequence; nuclear encoded protein composition of bovine heart mitochondrial complex I)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):5

L2 16 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 14-15 (Mammalian Pathological Biochemistry)
 Section cross-reference(s): 6

TI Reversible Glutathionylation of Complex I Increases Mitochondrial Superoxide Formation

ST glutathione complex I mitochondria superoxide

IT Disulfides
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (mixed; reversible glutathionylation of complex I increases mitochondrial superoxide formation)

IT Mitochondria
 Oxidative stress, biological
 (reversible glutathionylation of complex I increases mitochondrial superoxide formation)

IT 70-18-8, Glutathione, biological studies 7722-84-1, Hydrogen peroxide, biological studies 9028-04-0, Complex I (mitochondrial electron transport) 11062-77-4, Superoxide 27025-41-8, Glutathione disulfide
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (reversible glutathionylation of complex I increases mitochondrial superoxide formation)

L2 16 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 7-6 (Enzymes)
 Section cross-reference(s): 13

TI The post-translational modifications of the nuclear encoded subunits of complex I from bovine heart mitochondria

ST mitochondria complex I subunit post translational modification

IT Acetylation
 Myristoylation
 (N-terminal; post-translational modifications of nuclear encoded subunits of complex I from bovine heart mitochondria)

IT Functional groups
 (myristoyl group; post-translational modifications of nuclear encoded subunits of complex I from bovine heart mitochondria)

IT Methylation
 (of histidine residues; post-translational modifications of nuclear encoded subunits of complex I from bovine heart mitochondria)

IT Acetyl group
 Bos taurus
 Heart

Methyl group
 Mitochondria
 Post-translational processing
 (post-translational modifications of nuclear encoded subunits
 of complex I from bovine heart mitochondria)
 IT 71-00-1D, L-Histidine, methylated derivs.
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (post-translational modifications of nuclear encoded subunits
 of complex I from bovine heart mitochondria)
 IT 9028-04-0, Complex I (mitochondrial electron transport)
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
 (Biological study)
 (post-translational modifications of nuclear encoded subunits
 of complex I from bovine heart mitochondria)

L2 16 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 7-5 (Enzymes)
 TI Bovine complex I is a complex of 45 different subunits
 ST NADH ubiquinone reductase mitochondria complex I subunit compn
 IT Mitochondria
 (bovine mitochondrial complex I/NADH-ubiquinone reductase is a complex
 of 45 different subunits)
 IT Quaternary structure
 (protein; bovine mitochondrial complex I/NADH-ubiquinone reductase is a
 complex of 45 different subunits)
 IT 9028-04-0
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
 (Biological study)
 (bovine mitochondrial complex I/NADH-ubiquinone reductase is a complex
 of 45 different subunits)

L2 16 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 3-4 (Biochemical Genetics)
 Section cross-reference(s): 7
 TI An iron-sulfur domain of the eukaryotic primase is essential for RNA
 primer synthesis
 ST archaea eukaryote primase iron sulfur cluster RNA primer replication
 IT Primers (nucleic acid)
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (RNA; iron-sulfur domain of heterodimeric archaeal/eukaryotic primase
 is essential for RNA primer synthesis)
 IT Archaea
 Eukaryota
 Saccharomyces cerevisiae
 Sulfolobus solfataricus
 (iron-sulfur domain of heterodimeric archaeal/eukaryotic primase is
 essential for RNA primer synthesis)
 IT Iron-sulfur clusters (protein)
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
 (Biological study)
 (iron-sulfur domain of heterodimeric archaeal/eukaryotic primase is
 essential for RNA primer synthesis)
 IT Evolution
 (mol., conservative; iron-sulfur domain of heterodimeric
 archaeal/eukaryotic primase is essential for RNA primer synthesis)
 IT RNA
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (primer; iron-sulfur domain of heterodimeric archaeal/eukaryotic
 primase is essential for RNA primer synthesis)
 IT DNA replication
 (replication initiation; iron-sulfur domain of heterodimeric

archaeal/eukaryotic primase is essential for RNA primer synthesis)
 IT 7439-89-6D, Iron, -sulfur clusters, biological studies 7704-34-9D,
 Sulfur, -iron clusters, biological studies 64885-96-7, Primase
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
 (Biological study)
 (iron-sulfur domain of heterodimeric archaeal/eukaryotic primase is
 essential for RNA primer synthesis)

L2 16 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 7-4 (Enzymes)
 TI Redox Properties of the [2Fe-2S] Center in the 24 kDa (NQ02)
 Subunit of NADH:Ubiquinone Oxidoreductase (Complex I)
 ST ubiquinone oxidoreductase complex I redox iron sulfur cluster
 IT Cluster compounds
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
 (Biological study)
 (iron-sulfur; redox properties of [2Fe-2S] center in 24 kDa (NQ02)
 subunit of NADH:Ubiquinone oxidoreductase (complex I))
 IT Mitochondria
 Redox reaction
 Reduction potential
 (redox properties of [2Fe-2S] center in 24 kDa (NQ02) subunit
 of NADH:Ubiquinone oxidoreductase (complex I))
 IT Iron-sulfur clusters (protein)
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
 (Biological study)
 (redox properties of [2Fe-2S] center in 24 kDa (NQ02) subunit
 of NADH:Ubiquinone oxidoreductase (complex I))
 IT 7439-89-6D, Iron, sulfur cluster 7704-34-9D, Sulfur, iron cluster
 9028-04-0, NADH:Ubiquinone oxidoreductase
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
 (Biological study)
 (redox properties of [2Fe-2S] center in 24 kDa (NQ02) subunit
 of NADH:Ubiquinone oxidoreductase (complex I))

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):5

L2 16 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 7-3 (Enzymes)
 TI Reversible, electrochemical interconversion of NADH and NAD+ by the
 catalytic (1A) subcomplex of mitochondrial
 NADH:ubiquinone oxidoreductase (Complex I)
 ST NADH NAD interconversion subcomplex ubiquinone reductase
 mitochondria
 IT Mitochondria
 (reversible, electrochem. interconversion of NADH and NAD by catalytic
 subcomplex of mitochondrial complex I in relation to FMN and
 [2Fe-2S] cluster)
 IT Iron-sulfur clusters (protein)
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (reversible, electrochem. interconversion of NADH and NAD by catalytic
 subcomplex of mitochondrial complex I in relation to FMN and
 [2Fe-2S] cluster)
 IT 53-84-9, NAD 58-68-4, NADH 146-17-8, FMN 7439-89-6D, Iron, -sulfur
 clusters 7704-34-9D, Sulfur, -iron clusters 9028-04-0D, Ubiquinone
 reductase, 1A subcomplexes
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (reversible, electrochem. interconversion of NADH and NAD by catalytic
 subcomplex of mitochondrial complex I in relation to FMN and
 [2Fe-2S] cluster)

L2 16 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 IC ICM C12Q001-00
 CC 9-7 (Biochemical Methods)
 Section cross-reference(s): 7
 TI Pyridine nucleotide dehydrogenase based biosensor electrodes
 ST pyridine nucleotide dehydrogenase biosensor electrode
 IT Biosensors
 Electrochemical cells
 Enzyme electrodes
 (pyridine nucleotide dehydrogenase based biosensor electrodes)
 IT 53-59-8, NADP 53-84-9, NAD
 RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
 (pyridine nucleotide dehydrogenase based biosensor electrodes)
 IT 4432-31-9, MES 7365-45-9, HEPES 7778-53-2, Potassium phosphate 29915-38-6, TAPS
 RL: ARU (Analytical role, unclassified); ANST (Analytical study)
 (pyridine nucleotide dehydrogenase based biosensor electrodes)
 IT 9028-04-0, NADH ubiquinone oxidoreductase 9032-24-0, E.C.1.11.1.1 9079-67-8, E.C.1.6.99.3 111590-41-1, Pyridine nucleotide oxidoreductase
 RL: ARU (Analytical role, unclassified); PEP (Physical, engineering or chemical process); PYP (Physical process); ANST (Analytical study); PROC (Process)
 (pyridine nucleotide dehydrogenase based biosensor electrodes)
 IT 1312-43-2, Indium oxide 1332-29-2, Tin oxide 7439-88-5, Iridium, uses 7440-05-3, Palladium, uses 7440-06-4, Platinum, uses 7440-22-4, Silver, uses 7440-33-7, Tungsten, uses 7440-44-0, Carbon, uses 7440-57-5, Gold, uses 7782-40-3, Diamond, uses 13463-67-7, Titanium oxide, uses
 RL: DEV (Device component use); USES (Uses)
 (pyridine nucleotide dehydrogenase based biosensor electrodes)

L2 16 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 7-4 (Enzymes)
 TI Interpreting the Catalytic Voltammetry of an Adsorbed Enzyme by Considering Substrate Mass Transfer, Enzyme Turnover, and Interfacial Electron Transport
 ST NADH ubiquinone oxidoreductase adsorption electrode catalytic voltammetry
 IT Oxidation
 (enzymic; model for voltammetric behavior of subcomplex I α during NADH oxidation incorporates kinetics, substrate mass transfer, and interfacial electron transport)
 IT Electron transport
 (interfacial; model for voltammetric behavior of subcomplex I α during NADH oxidation incorporates kinetics, substrate mass transfer, and interfacial electron transport)
 IT Enzyme kinetics
 Mass transfer
 Voltammetry
 (model for voltammetric behavior of subcomplex I α during NADH oxidation incorporates kinetics, substrate mass transfer, and interfacial electron transport)
 IT Adsorption
 (protein, electrode surface; model for voltammetric behavior of subcomplex I α during NADH oxidation incorporates kinetics, substrate mass transfer, and interfacial electron transport)
 IT 58-68-4, NADH
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (model for voltammetric behavior of subcomplex I α during NADH oxidation incorporates kinetics, substrate mass transfer, and interfacial electron transport)

IT 9028-04-0, NADH-ubiquinone oxidoreductase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (subcomplex I_A; model for voltammetric behavior of
 subcomplex I_A during NADH oxidation incorporates kinetics,
 substrate mass transfer, and interfacial electron transport)

L2 16 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 7-5 (Enzymes)

TI Reevaluating the relationship between EPR spectra and enzyme structure for
 the iron-sulfur clusters in NADH:quinone oxidoreductase

ST NADH quinone oxidoreductase structure iron sulfur cluster EPR spectra

IT ESR spectroscopy
 Electron transfer
 Escherichia coli
 (re-evaluation of the relation between EPR spectra and enzyme structure
 for the Fe-S clusters in NADH-quinone oxidoreductase of Escherichia
 coli)

IT Iron-sulfur clusters (protein)
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
 (Biological study)
 (re-evaluation of the relation between EPR spectra and enzyme structure
 for the Fe-S clusters in NADH-quinone oxidoreductase of Escherichia
 coli)

IT 7439-89-6D, Iron, sulfur clusters, biological studies 7704-34-9D,
 Sulfur, iron clusters, biological studies
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
 (Biological study)
 (re-evaluation of the relation between EPR spectra and enzyme structure
 for the Fe-S clusters in NADH-quinone oxidoreductase of Escherichia
 coli)

IT 37256-36-3, NADH-quinone oxidoreductase
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
 (Biological study)
 (subunit NuoG; re-evaluation of the relation between EPR
 spectra and enzyme structure for the Fe-S clusters in NADH-quinone
 oxidoreductase of Escherichia coli)

L2 16 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
 CC 3-4 (Biochemical Genetics)
 Section cross-reference(s): 7, 13

TI GRIM-19, a cell death regulatory gene product, is a subunit of
 bovine mitochondrial NADH: ubiquinone oxidoreductase (complex I)

ST sequence cattle human ubiquinone oxidoreductase apoptosis

IT Bos taurus
 Human
 (GRIM-19, a cell death regulatory gene product, is a subunit
 of bovine mitochondrial ubiquinone oxidoreductase (complex I))

IT Gene, animal
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
 (Biological study)
 (GRIM-19; GRIM-19, a cell death regulatory gene product, is a
 subunit of bovine mitochondrial ubiquinone oxidoreductase
 (complex I))

IT Mitochondria
 (complex I; GRIM-19, a cell death regulatory gene product, is a
 subunit of bovine mitochondrial ubiquinone oxidoreductase
 (complex I))

IT Protein sequences
 cDNA sequences
 (of cattle ubiquinone oxidoreductase; GRIM-19, a cell death regulatory
 gene product, is a subunit of bovine mitochondrial ubiquinone

oxidoreductase (complex I))

IT Interferons
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (β, induces ubiquinone oxidoreductase; GRIM-19, a cell death
 regulatory gene product, is a subunit of bovine mitochondrial
 ubiquinone oxidoreductase (complex I))

IT 9028-04-0, NADH:ubiquinone oxidoreductase
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
 (Biological study)
 (GRIM-19, a cell death regulatory gene product, is a subunit
 of bovine mitochondrial ubiquinone oxidoreductase (complex I))

IT 303817-41-6 408490-49-3
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
 (Biological study)
 (amino acid sequence; GRIM-19, a cell death regulatory gene product, is
 a subunit of bovine mitochondrial ubiquinone oxidoreductase
 (complex I))

IT 302-79-4, Retinoic acid
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (induces ubiquinone oxidoreductase; GRIM-19, a cell death regulatory
 gene product, is a subunit of bovine mitochondrial ubiquinone
 oxidoreductase (complex I))

IT 300761-17-5, GenBank AF286697 360345-67-1, GenBank AJ316011
 RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
 (Biological study)
 (nucleotide sequence; GRIM-19, a cell death regulatory gene product, is
 a subunit of bovine mitochondrial ubiquinone oxidoreductase
 (complex I))

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

```
=> fil stnguide
COST IN U.S. DOLLARS                SINCE FILE      TOTAL
                                     ENTRY      SESSION
FULL ESTIMATED COST                18.83      22.21
```

FILE 'STNGUIDE' ENTERED AT 13:25:12 ON 14 JUL 2008
 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
 COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE CONTAINS CURRENT INFORMATION.
 LAST RELOADED: Jul 11, 2008 (20080711/UP).

```
=> fil hcapl
COST IN U.S. DOLLARS                SINCE FILE      TOTAL
                                     ENTRY      SESSION
FULL ESTIMATED COST                0.24      22.45
```

FILE 'HCAPLUS' ENTERED AT 13:27:29 ON 14 JUL 2008
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
 COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing

of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 14 Jul 2008 VOL 149 ISS 3
FILE LAST UPDATED: 13 Jul 2008 (20080713/ED)

HCAPlus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s mitochondri## (2a) complex

179452 MITOCHONDRI##
1421511 COMPLEX
778330 COMPLEXES
1729181 COMPLEX
(COMPLEX OR COMPLEXES)

L3 5513 MITOCHONDRI## (2A) COMPLEX

=> s nq01

L4 25 NQ01

=> s catalytic

456151 CATALYTIC
6 CATALYTICS
L5 456155 CATALYTIC
(CATALYTIC OR CATALYTICS)

=> s electric?

1389713 ELECTRIC?
1142379 ELEC
401 ELECS
1142491 ELEC
(ELEC OR ELECS)

L6 1897520 ELECTRIC?
(ELECTRIC? OR ELEC)

=> s electro##?

'#' TRUNCATION SYMBOL NOT VALID WITHIN 'ELECTROD##?'

The truncation symbol # may be used only at the end of a search term. To specify a variable character within a word use '!', e.g., 'wom!n' to search for both 'woman' and 'women'. Enter "HELP TRUNCATION" at an arrow prompt (=>) for more information.

=> s pyridine

225496 PYRIDINE
16210 PYRIDINES
L7 230215 PYRIDINE
(PYRIDINE OR PYRIDINES)

=> s nad#

```

L8      84910 NAD#
=> s nicotinamide
      23358 NICOTINAMIDE
      431 NICOTINAMIDES
L9      23475 NICOTINAMIDE
      (NICOTINAMIDE OR NICOTINAMIDES)
=> s complex
      1421511 COMPLEX
      778330 COMPLEXES
L10     1729181 COMPLEX
      (COMPLEX OR COMPLEXES)
=> s module
      69447 MODULE
      33599 MODULES
L11     88029 MODULE
      (MODULE OR MODULES)
=> s subunit
      172960 SUBUNIT
      108511 SUBUNITS
L12     227292 SUBUNIT
      (SUBUNIT OR SUBUNITS)
=> d his

(FILE 'HOME' ENTERED AT 13:19:14 ON 14 JUL 2008)
FILE 'HCAPLUS' ENTERED AT 13:19:39 ON 14 JUL 2008
FILE 'CAPLUS' ENTERED AT 13:19:58 ON 14 JUL 2008
      E 2006-551144/APPS
FILE 'HCAPLUS' ENTERED AT 13:20:49 ON 14 JUL 2008
      E HIRST J/AU
      E HIRST JUDY/AU
L1      57 S E3
L2      16 S L1 AND (MODULE OR SUBUNIT OR SUBCOMPLEX)
FILE 'STNGUIDE' ENTERED AT 13:25:12 ON 14 JUL 2008
FILE 'HCAPLUS' ENTERED AT 13:27:29 ON 14 JUL 2008
L3      5513 S MITOCHONDRI## (2A) COMPLEX
L4      25 S NQ01
L5      456155 S CATALYTIC
L6      1897520 S ELECTRIC?
L7      230215 S PYRIDINE
L8      84910 S NAD#
L9      23475 S NICOTINAMIDE
L10     1729181 S COMPLEX
L11     88029 S MODULE
L12     227292 S SUBUNIT
=> s L3-L4 and L5-L6 and L8-L9 and L10-L12

```

L13 97 (L3 OR L4) AND (L5 OR L6) AND (L8 OR L9) AND (L10 OR L11 OR L12)

=> s L13 and electroded##
713753 ELECTROD##

L14 1 L13 AND ELECTROD##

=> d scan

L14 1 ANSWERS HCAPLUS COPYRIGHT 2008 ACS on STN
CC 7-3 (Enzymes)

TI Reversible, electrochemical interconversion of NADH and
NAD+ by the catalytic (I λ) subcomplex of
mitochondrial NADH:ubiquinone oxidoreductase (Complex
I)

ST NADH NAD interconversion subcomplex ubiquinone
reductase mitochondria

IT Mitochondria
(reversible, electrochem. interconversion of NADH and
NAD by catalytic subcomplex of mitochondrial
complex I in relation to FMN and [2Fe-2S] cluster)

IT Iron-sulfur clusters (protein)
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(reversible, electrochem. interconversion of NADH and
NAD by catalytic subcomplex of mitochondrial
complex I in relation to FMN and [2Fe-2S] cluster)

IT 53-84-9, NAD 58-68-4, NADH 146-17-8, FMN
7439-89-6D, Iron, -sulfur clusters 7704-34-9D, Sulfur, -iron clusters
9028-04-0D, Ubiquinone reductase, I λ subcomplexes
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(reversible, electrochem. interconversion of NADH and
NAD by catalytic subcomplex of mitochondrial
complex I in relation to FMN and [2Fe-2S] cluster)

ALL ANSWERS HAVE BEEN SCANNED

=> fil stnguide
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
13.45	35.90

FULL ESTIMATED COST

FILE 'STNGUIDE' ENTERED AT 13:30:34 ON 14 JUL 2008
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jul 11, 2008 (20080711/UP).

=> fil caplus, medline, biotechno, biosis, biotechds, esbiobase, scisearch
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.06	35.96

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 13:31:25 ON 14 JUL 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'MEDLINE' ENTERED AT 13:31:25 ON 14 JUL 2008

FILE 'BIOTECHNO' ENTERED AT 13:31:25 ON 14 JUL 2008

COPYRIGHT (C) 2008 Elsevier Science B.V., Amsterdam. All rights reserved.

FILE 'BIOSIS' ENTERED AT 13:31:25 ON 14 JUL 2008
Copyright (c) 2008 The Thomson Corporation

FILE 'BIOTECHDS' ENTERED AT 13:31:25 ON 14 JUL 2008
COPYRIGHT (C) 2008 THOMSON REUTERS

FILE 'ESBIODASE' ENTERED AT 13:31:25 ON 14 JUL 2008
COPYRIGHT (C) 2008 Elsevier Science B.V., Amsterdam. All rights reserved.

FILE 'SCISEARCH' ENTERED AT 13:31:25 ON 14 JUL 2008
Copyright (c) 2008 The Thomson Corporation

=> s mitochondri## (2a) complex

L15 19796 MITOCHONDRI## (2A) COMPLEX

=> s nq01

L16 164 NQ01

=> s catalytic

L17 901130 CATALYTIC

=> s electric?

L18 2812607 ELECTRIC?

=> s electrode##?

'#' TRUNCATION SYMBOL NOT VALID WITHIN 'ELECTROD##?'
The truncation symbol # may be used only at the end of a search term.
To specify a variable character within a word use '!', e.g., 'wom!n'
to search for both 'woman' and 'women'. Enter "HELP TRUNCATION" at an
arrow prompt (=>) for more information.

=> s pyridine

L19 353028 PYRIDINE

=> s nad#

L20 300162 NAD#

=> s nicotinamide

L21 75155 NICOTINAMIDE

=> s complex

L22 4799957 COMPLEX

=> s module

L23 202305 MODULE

=> s subunit

L24 977572 SUBUNIT

=> d his

(FILE 'HOME' ENTERED AT 13:19:14 ON 14 JUL 2008)

FILE 'HCAPLUS' ENTERED AT 13:19:39 ON 14 JUL 2008

FILE 'CAPLUS' ENTERED AT 13:19:58 ON 14 JUL 2008
E 2006-551144/APPS

FILE 'HCAPLUS' ENTERED AT 13:20:49 ON 14 JUL 2008

E FIRST J/AU

E FIRST JUDY/AU

L1 57 S E3

L2 16 S L1 AND (MODULE OR SUBUNIT OR SUBCOMPLEX)

FILE 'STNGUIDE' ENTERED AT 13:25:12 ON 14 JUL 2008

FILE 'HCAPLUS' ENTERED AT 13:27:29 ON 14 JUL 2008

L3 5513 S MITOCHONDRI## (2A) COMPLEX

L4 25 S NQ01

L5 456155 S CATALYTIC

L6 1897520 S ELECTRIC?

L7 230215 S PYRIDINE

L8 84910 S NAD#

L9 23475 S NICOTINAMIDE

L10 1729181 S COMPLEX

L11 88029 S MODULE

L12 227292 S SUBUNIT

L13 97 S L3-L4 AND L5-L6 AND L8-L9 AND L10-L12

L14 1 S L13 AND ELECTROD##

FILE 'STNGUIDE' ENTERED AT 13:30:34 ON 14 JUL 2008

FILE 'CAPLUS, MEDLINE, BIOTECHNO, BIOSIS, BIOTECHDS, ESBIODBASE,

SCISEARCH' ENTERED AT 13:31:25 ON 14 JUL 2008

L15 19796 S MITOCHONDRI## (2A) COMPLEX

L16 164 S NQ01

L17 901130 S CATALYTIC

L18 2812607 S ELECTRIC?

L19 353028 S PYRIDINE

L20 300162 S NAD#

L21 75155 S NICOTINAMIDE

L22 4799957 S COMPLEX

L23 202305 S MODULE

L24 977572 S SUBUNIT

=> s (L15 or L16) and L17-18 and (L19 or L20 or L21) and L22-24

L25 283 (L15 OR L16) AND (L17 OR L18) AND (L19 OR L20 OR L21) AND (L22
OR L23 OR L24)

=> s L25 and electroD##

L26 1 L25 AND ELECTROD##

=> d scan

L26 1 ANSWERS CAPLUS COPYRIGHT 2008 ACS on STN

CC 7-3 (Enzymes)

TI Reversible, electrochemical interconversion of NADH and
NAD+ by the catalytic (I λ) subcomplex of

mitochondrial NADH:ubiquinone oxidoreductase (Complex I)

ST NADH NAD interconversion subcomplex ubiquinone reductase mitochondria

IT Mitochondria
 (reversible, electrochem. interconversion of NADH and NAD by catalytic subcomplex of mitochondrial complex I in relation to FMN and [2Fe-2S] cluster)

IT Iron-sulfur clusters (protein)
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (reversible, electrochem. interconversion of NADH and NAD by catalytic subcomplex of mitochondrial complex I in relation to FMN and [2Fe-2S] cluster)

IT 53-84-9, NAD 58-68-4, NADH 146-17-8, FMN 7439-89-6D, Iron, -sulfur clusters 7704-34-9D, Sulfur, -iron clusters 9028-04-0D, Ubiquinone reductase, I λ subcomplexes
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (reversible, electrochem. interconversion of NADH and NAD by catalytic subcomplex of mitochondrial complex I in relation to FMN and [2Fe-2S] cluster)

ALL ANSWERS HAVE BEEN SCANNED

=> logoff